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EDITORS.

ADDING an associate editor, a change from a bi-weekly to a weekly and from \$1.50 to \$2 per annum, are among the later evolutions of the Hospital Gazette and Archives of Clinical Surgery. We hasten to get ahead of our gushing contemporaries in welcoming the Gazette to the small but select company of weekly journals. We trust that it will become somewhat permanently settled in its new pathway, and "*sic itur ad astra*," which being translated means, "Go for the fellows that go for the New York fracture star." Its editorial of April 11th, which is probably official, reviews Prof. Hamilton's reviewers in a very dignified manner. It complains of a certain flippancy and inaccuracy of style adopted by these gentlemen, and "in the interest of good morals and good manners" (we looked twice to see if we had this quotation right) has "given a public rebuke."

No one has been greater shocked than ourselves at the liberties which those young fellows, Hodgen, Bauer, Sayre, etc. have taken with the great American fracturist; but Prof. Hamilton should not feel himself wholly aggrieved. He has so thoroughly identified himself with the subject of broken bones that one can not be thought of without the other, and when such a bone of contention as the fractured femur is up for consideration the discussion is apt to be a little queer at times.

It may have been noticed that ourselves are at a little variance with Prof. Hamilton in the opinions he holds as to the best means of re-establishing the continuity after its so-

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lution in certain localities of the skeleton, and probably we may take further occasion to justify our dissent; but we trust that our differences may be confined to the subject only, for we would not break with Professor Hamilton himself for all the broken legs in Bellevue.

## Original.

### THE METRIC SYSTEM IN MEDICINE.

BY ED. WIGGLESWORTH, A. M., M. D., HARVARD.

In answer to the common question, "Of what special advantage will the metric system be to me, and what ought I to do to advance its introduction," it may be said that every one should do all in his power to further its introduction, since it possesses such great merits in general; that the best way to accomplish this is for each branch of science or education, every profession, trade, and occupation to promote the interests of the system to the extent of its power within its own sphere, in order that the sum of all these social parts may equal the whole community, and to be able to give a reason for the faith which is in it by the testimony, based on experience, of its individual members or adherents.

The special advantage accruing to one such member of a profession accrues to all its members, and the reason why the system is so rapidly gaining ground in the medical profession is well given in the Metric Bulletin for November, 1876; thus,

I. "Because of its great convenience in writing and compounding prescriptions, in dividing doses, and in computing quantities required during given times.

II. "Because physicians have learned what the system really is in their chemical studies, and to thoroughly understand it is to wish to adopt it.

III. "Because of the cosmopolitan character of medicine, a prescription from any one of the score of countries using the system is liable to find its way into a physician's note-book, and it is a great convenience to be able to send it to the druggist without spending an hour in adapting it to our own tangle of measures.

IV. "Because our medical men, more than almost any other class, are free from that jealous conservatism and bigotry which forbid a fair examination of a thing, though it promises the greatest good, simply because it was not in the credo of their fathers.

"Weights and measures enter so little into the every-day life of the other learned professions—law and theology—that the interest in those quarters must be prompted by pure philanthropy, while every physician has a practical personal interest in the adoption.

"The druggists who have facilities for weighing and measuring in the metric system report a constantly increasing number of prescriptions written in the new form; and we may look to be cured (or killed) in accordance with the international measures before our clothes are made or our provisions dispensed in its denominations."

Scientific medicine has long employed the metric system as a matter of course, fine work demanding the best of tools. That the domestic drudgery of the general practitioner—prescription-writing—stands also in need of the system is well shown by documents presented to the Comitia Minora of the county society of New York, which at the annual meeting, November 27, 1876, reported to the society the following resolution, which was adopted:

*Resolved*, That the Medical Society of the County of New York recommends to its members the use of the metric system in their prescriptions.

And also by subsequent editorials in the New York Medical Record based on these

documents (New York Med. Record, Dec. 9, 16, 23, 30, 1876). Thus, in the old method of prescribing various units are employed—viz., the grain, scruple, drachm, and ounce—as measures of weight; and the fluid drachm, fluid ounce, and pint as measures of capacity. These measures of capacity bear the same name in England, but represent very different amounts; a source of great inconvenience in reading English books, and a source of practical danger even, since English-made graduates are said to be imported and employed by American pharmacists.

There is another difficulty arising from the use of the same terms for both measure and capacity. One fluid ounce weighs 455.6 grains. Should the physician omit to place an *f* before the ounce-symbol (and many never insert this prefix at all), it is the druggist's duty to supply a Troy ounce, or 480 grains of the preparation demanded. The German druggists, as the rule, do this; the independent American takes it for granted that fluid ounce is meant, and supplies that. The English ounce again is different still, being the avoirdupois ounce of 437.5 grains. Solutions of powerful drugs may thus vary greatly in quantity.

Accurate measurements with graduated glasses are also very difficult at best, while the ease in employing them leads to great carelessness, which would be obviated were weights alone employed. Moreover, the graduating glasses themselves are roughly made, and sold at three dollars a dozen, showing that very little time or trouble has been spent upon their correct adjustment. A large proportion of the Troy weights in use in this country are also inaccurate, many of them seriously so; inspectors of weights not examining the prescription-weights, but merely the avoirdupois. The same is true of the balances employed, many being incorrect; some not turning with fine weights, which are consequently estimated, while in other cases weights above half an ounce have been estimated by avoirdupois instead of Troy weight.

"The practice of medicine necessarily pre-

sents so many uncertainties that we should make an effort if possible to diminish these; and if we can secure uniformity in the dispensing of our medicines, we can eliminate at least one variable factor.

"In the metric system we deal with but one unit—the gram—equal to a little less than fifteen and a half grains Troy. All integral quantities are expressed in multiples of this, and all fractions in decimals, the decimal-point being always placed in its proper position between the integers and the fraction, in the same way that we place the point between dollars and cents in our own monetary notations; and this is the whole of the metric system so far as it immediately concerns us. It is expedient for the present to write the word grams in full over the first line of figures." Instead of the decimal-point a perpendicular *line*, as suggested by Dr. W. P. Bolles, should be drawn from the top to the bottom of the right side of the prescription-paper.

Drops might be allowable also in metric prescriptions, since we are to lose the minim, for which practically, though not with justice, the drop is usually substituted.

Another merit of the metric system is its convenience in calculating and altering formulary (metric) when it is desirable to increase or diminish the quantity of the active ingredients, the quantity of the menstruum and dose remaining the same.

The majority of objections to the new system have been raised by ignorant people, and are based upon misapprehension; thus,

I. "The system is complicated and difficult to learn." On the contrary, its simplicity is a great feature, and it can be fully acquired in half an hour.

II. "It will throw us out of uniformity with English practice." Only, however, partially as to weight. Our measures are different at present, and it throws us *into* uniformity with nearly all other countries; namely, with populations aggregating four hundred and thirty-two millions, whereas the population of England is only about thirty-two millions. By other populations numbering

forty-eight millions it is already partially employed. Moreover, our best medical literature comes not from England, but from those countries, Germany especially, which use the metric system.

III. "We must forget the units of length, volume, and weight to which we have been accustomed." Not at all; we merely *acquire new ones*, and employ these, and we shall very soon insensibly begin to think in the new system; which is to be acquired in the same way as a new language—namely, by beginning with it as we begin with our own.

IV. "The druggists are not familiar with the metric system." On the contrary, they are far in advance of the physicians, and strongly in favor of its adoption.

V. "The druggists have not the requisite weights, and will calculate back into the old system and may make mistakes." All the best druggists have metric weights already. Those not having them can obtain complete sets for about six dollars, a sum which a single day will restore to them from their gain in metric prescriptions. We may also feel sure, as suggested by Dr. A. N. Blodgett (Boston Med. and Surg. Jour., December 21, 1876), of "better drugs from a pharmacist educated to use this system than from one who has acquired his experience as a trade learned from his master. The metric system, therefore, seems to offer the following distinct and definite advantages: It dispenses with the signs of the quantities; it employs Arabic figures instead of Roman numerals; it assures the physician of more competent service from the pharmacist, and of a better quality of medicine, and reduces considerably the danger of mistakes on the part of physician and druggist."

"It provides denominations of weights applicable to the smallest quantity which the physician or the pharmacist can be called upon to prescribe or dispense, the old grain being by far too large a unit for the measurement of the powerful drugs which modern chemistry has added to our *materia medica*. It is decimal in the character of

its divisions, and we all recognize the facility of decimal arithmetical operations. By this arithmetical simplicity we are enabled more readily to appreciate quantitative ratios in our formulas and in the resulting pharmaceutical preparations. It enables us to substitute magistral for officinal recipes, and if these were more extensively used then comparatively simple formulas would be readily improvised to meet the varying exigencies of individual cases, the tendency to polypharmacy would be diminished, the study and practice of rational therapeutics would be facilitated, and the extensive use of patent medicines by physicians, which is the opprobrium of the medical profession in this country, would be lessened." (Dr. T. B. Curtis, in the *Boston Medical and Surgical Journal*, December 6, 1877.)

It is uniform, consistent, international, and permanent, at least until the world shall be sufficiently civilized and united to adopt, at once and by common consent, the duodecenary system, which is impracticable during this generation.

The metric system alone furnishes sufficient accuracy for the chemist and pharmacist. It is necessary in the microscopic measurements of the anatomist and physiologist and in the microscopic ones of the surgeon. It gives to general therapeutics the centigrade thermometer and other instruments, and becomes daily more needful as general medicine crystallizes into specialties with their naturally and necessarily greater acquirements in science and consequently greater requirements from art.

Thus, for instance, Dr. E. G. Loring (*Boston Med. and Surg. Jour.*, September 7, 1876) and Dr. H. Derby (*Boston Med. and Surg. Jour.*, October 12, 1876) allude to the great superiority of the metric system in ophthalmology. Dr. Derby says, for instance, among various reasons for adopting the metric system, that the numeration of spectacle-lenses is now based upon the metric system, and the loss of one's eye-glasses in any part of the civilized world involves merely the expense of a new pair with the

focal distance and other attributes of the lost lenses. Formerly the unit of the system in use was a one-inch lens, which was too strong for practical purposes, and therefore had no real existence. Moreover, this very standard was variable, and to ascertain the strength of a lens of a given number, especially a high one, it was necessary to find out in what country it was ground. The Paris inch differed from the English, 36.94 of the former, 36.37 of the latter going to an inch. Between these came the Rhenish and Austrian inches, all different from each other. A patient asking for No. 2 in London, Paris, Berlin, or Vienna might receive a different glass in each place.

At a meeting of the Heidelberg Society in 1875, and shortly afterward at the Medical Congress at Brussels, Professor Donders proposed the metric as the unit of numeration. This system has been adopted by the most eminent ophthalmologists, and its use is daily spreading; and in our own country the surgeons of the Boston Eye and Ear Infirmary voted, in 1876, "that all future measures of length and refraction be recorded in and all glasses ordered on the metric system."

The advantage of this uniform numeration of spectacle-lenses is obvious. Whereas, in old times, a No. 2 lens meant a lens of two (English, French, Austrian, or Prussian) inches focal length, according to the country in which it was ground, it now means a lens equal to two lenses, each having a focal length of one meter, *i. e.* a lens of fifty centimetres focal length.

Finally, in regard to volumetric or gravimetric methods, supposing the metric system to be adopted, it is a purely subsidiary question how we shall use it; that is, whether by weight or measure in prescribing. Measures may be used just as we use them at present in our "systemless system." But it is better to make the complete change at once, since we must come eventually to prescribing by weight alone; for,

I. Prescribing by weight gives more exact results.



II. When once learned it is vastly more convenient.

III. It is perfectly easy to learn. The only difficulty is in the apportionment of doses, since we must continue to allow the patient to take his medicine by the domestic measurement of spoonfuls. Now these doses once learned will be more easily remembered by weight than by volume, since they will have been made in fixed proportions by weight only, and in the same way prescriptions as a whole will be more readily borne in mind. But there is no need even of this, for there is no trouble in estimating the volume, and consequently the dose, of fluids prescribed by weight; for whether reached by the use of weights or measures, the result is in either case the same definite bulk of menstruum, and is to be divided up, of course, in the same manner for doses. Thus the bulk of a mixture is either an infusion, a tincture, water, or a syrup. Of these the first three have specific gravities, which are for practical purposes identical. The fourth is a third heavier than the others. What is then simpler than, when prescribing by weight, to prescribe of a syrup four thirds as much by weight as if we were prescribing plain water, thus obtaining the same bulk as if we had used water, which bulk can then be divided up by the patient into his time-honored "teaspoonful three times a day." Other liquids, the specific gravities of which vary markedly from that of water, are very simply never prescribed in bulk, and therefore need not be considered. The increased accuracy derived from the employment of weights more than compensates for any slight variation in the small amount of these liquids in a single dose of the menstruum, a variation less than that in the idiosyncrasies of different patients, or would even justify the plan proposed by Mr. Alfred Taylor, of "making the mixture up to a desired bulk by adding sufficient quantity of the vehicle or adjuvant." Moreover, fixed oil, honey, liquid acids, and chloroform are by our present pharmacopœia directed to be always weighed. Why then stop there,

since we need equal accuracy in regard to other fluids?

If the physician prefers, however, to be strictly accurate on principle, this also is possible. Prof. Maisch has called attention to the fact that neither the drop, the teaspoon, nor the tablespoon possesses the exact value in bulk usually assigned to it; that evaporation and adhesion militate against accuracy in the use of volumetric methods, it even being difficult, on account of the refraction of light and the thickness and coarseness of the measuring glass, to correctly ascertain the height of the liquid in such glass; that consequently gravimetric methods are preferable; and in the *American Journal of Pharmacy* for February 1, 1877, he discusses these points at length, and "shows that the physician may gradually accustom himself to the changes, either by using the tables there given in converting the measures of different liquids into their corresponding metric weights, or by directing the apothecary to dispense them by this weight after converting the weight and measure now in use into grains."—(*Boston Med. and Surg. Journal*, April 5, 1877.)

To conclude, the gravimetric method is the one employed by all nations using the metric system, and it is of the highest importance to avoid courting a disagreeable notoriety by an affected and purposeless singularity based upon indolence and selfishness. As the church, with its common tongue, the Latin, is at home wherever churchism extends, so science, by promoting universally identical customs, thoughts, and language, must hasten the approach of universal brotherhood, peace, knowledge, and consequently happiness.

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#### A BUSINESS AXIOM.

The man's an ignoramus,  
Or, lower yet, a scamp,  
Who writes for information,  
And sends no postage-stamp.

—*Courier-Journal*.

## Formulary.

### FOR NIGHT-SWEATS.

M. Porcher gives (*L'Union Médicale*, November 6th) the following formula for the night-sweats of phthisis:

R Sulphate of atropine ..... gr. o.15;  
 Extract of gentian..... gr. 1½;  
 Acacia, sufficient to make ten pills.  
 Dose—One or two a day.

### IN ASTHMA.

M. Desnos (*L'Union Médicale*, November 10th) gives the following formula for an antiasthmatic elixir:

R Snakeroot ..... gr. xlv;  
 Water ..... ʒ iv.  
 Boil until reduced one half, strain, and add—  
 Iodide of potassium..... gr. xc.  
 After cooling add—  
 Brandy ..... ʒ ij;  
 Syrup of opium ..... ʒ iv.

Filter. Dose—Two or three tablespoonfuls a day for asthmatics; the first before breakfast and the other between meals.

## Miscellany.

WRITERS' CRAMP.—Dr. Poore, in the *London Medical Examiner*, gives the result of an analysis of seventy-five cases of this disease, and concludes as follows:

" 'Writers' cramp' has been spoken of as a disease of 'faulty co-ordination,' and there can be no doubt that such is the case, for it is evident that the muscles used for writing fail to work orderly together. We are not, however, justified in assuming the existence of a special co-ordinating center for the controlling of the act of writing; and the author had been unable to find evidence that this center (supposing it to exist) ever gives way, leaving the periphera, except for the special co-ordinated act, in a state of perfect health. The existence of such a center appeared to the author to be improbable, for the following reasons:

"1. He had never seen a case of writers' cramp without peripheral evidence of change; and in the majority of cases there

had been no evidence of any change other than peripheral.

"2. If there be a co-ordinating center for writing, it must be created, as it were, by education. The co-ordination of writing, which we are many years in acquiring, must be distinguished from those co-ordinated movements (such as the symmetrical movement of the two eyes) which are wholly independent of education. The fact that no two people hold their pens exactly alike, and that it is scarcely more difficult to write with the toes than with the fingers, is much against the probability of the existence of a writing center.

"3. Writers' cramp is never suddenly established, as aphasia sometimes is.

"4. It is almost certain that a purely peripheral lesion may cause all the symptoms of writers' cramp.

"5. The fact that the left hand, if used for writing, sometimes suffers as well as the right, is no evidence that the change is central.

"In previous writings the author had spoken of 'writers' cramp' as a 'fatigue-disease,' and he was still inclined to adhere to the word 'fatigue' as a convenient expression for an easily recognizable and familiar condition of the pathology of which we are uncertain. He was inclined to think that occasionally fatigue is the expression of hyperæmia or mild inflammation of a motor nerve, and that the same condition may be produced either by overwork or by accidental causes, such as cold, strain, 'rheumatism,' or injury. Fatigue especially attacks those muscles which are subjected to prolonged strain; and it is probable that the relative frequency of 'writers' cramp,' as compared with other professional ailments, is due to the fact that prolonged strain of certain muscles (those which hold and steady the pen) is inseparable from the act of writing.

"Finally, as to the position of 'writers' cramp' in the catalogue of diseases, the author would feel inclined to class it with neuralgia; that is, with a disease the phenomena of which are purely local, but which

we recognize as being due not only to conditions affecting the sensory area involved, but also to molecular change affecting any part of the sensory fiber, whether before or after its function with the nerve-center. The author concluded by laying down certain principles of treatment for the various forms of impaired writing-power."

**MATERNAL IMPRESSIONS.**—H. M. Mackay, M. D., of Woodstock, Ont., reports the following extraordinary case to the *Canada Lancet*:

"Mrs. H., mother of several healthy children, was severely shocked during the pregnancy referred to in this report by a sad accident to her husband, and which afterward proved fatal.

"To make the case more intelligible I will first relate the accident referred to. Mr. H., a pump-maker, was engaged in a well, at the depth of thirty-five feet, staying a pump, when the stone walls suddenly gave way. The stones forming a partial arch over his head prevented his being instantly crushed. After sixteen hours of anxious, weary labor—his voice, faint and indistinct, being audible all the time—he was found still living, with his arms and legs clasped around the pump-log; a position into which he sprang, as he afterward stated, when he felt the stones moving. When taken out, cold and numb, his feet were turned inward, as in the act of climbing. Two stones had pressed upon him: one, upon the head, left a contusion; the other, upon the lumbar region of the spine, produced a slough. He lived only five days after the accident. During this time he was very restless, but much relieved when some person leaned over him so that he could clasp his hands around them. Mrs. H., six months advanced in pregnancy, was present at the rescue, and nursed her husband almost without intermission up to the time of his death. Three months afterward she gave birth to a deformed infant, the abnormalities of which bore a striking resemblance to the condition and marks on the father produced by the accident in the well.

Its feet were turned inward, with double talipes varus. On the side of the head was an ecchymosis, and in the lumbar region of the spine a wound differing from an ordinary spina bifida, in there being no abnormal fluid in the subarachnoid space, and besides the spinal processes and laminae of the part all the structures external to the membranes of the cord were deficient. The cord, of normal size, was visible through the membranes. The wounds on the head and spine corresponded to those referred to on the father; more especially the latter, as a slough when removed leaves exposed the normal structures underneath. The child lived five days, the same length of time as the father lived after the accident. Another and the most remarkable coincidence was that the child resembled the father in not resting only when some one held its hands firmly grasped. The latter circumstance I could not believe until I saw unmistakable evidence of it. As I entered the room one day the child was sleeping quietly, the nurse holding its hands inclosed in her own. She mentioned to me the peculiarity, and as I expressed myself as being doubtful of the fact, she quietly and gently relaxed her hold. No sooner done than the child screamed as if in great distress, and as soon as she seized them again it became calm and quiet, and remained so while the hands were held."

DR. LUKE P. BLACKBURN, of this city, is announced as a candidate for the governorship of Kentucky. We are not acquainted with the doctor's particular views upon the issues of the day, and as medical journalists not interested therein. It is his professional relations which lead us to announce him in these columns. When it is remembered how the medical profession has so often failed in having its questions considered by the law-makers of the state, it is well to think over the matter as to whether a doctor in the right place might not right up matters considerably. Dr. Blackburn has commenced the canvass, and hopes to continue it "until the close of the polls."

**HYOSCYAMINE.**—Dr. H. Clifford Gill, in the *London Practitioner*, thus sums up his experience with hyoscyamine:

"1. That a noisy, violent, dangerous, and troublesome lunatic can easily and certainly be rendered calm for some hours, and probably though not certainly, unless the dose be increased, be sent into a profound sleep lasting many hours. 2. That I have never seen any ill consequences follow the administration of hyoscyamine. 3. That the drug is most useful in acute delirious mania, in the various forms of remittent mania, and it is said also in the congestive (?) stage of G. P. 5. That in melancholia and where there is much depression with brain irritation, little or no good is gained, and it is in these cases, I am inclined to believe, that great dilatation of pupil is met with.

"Many doctors in general practice must frequently be called to cases of acute mania in their early stages, when it is that extreme violence in a private house is so fraught with danger both to the friends as well as to the patient. In such cases I think great benefit would be derived by the administration of a full dose of hyoscyamine; and even if, as is most likely the case, the attack is not cut short, yet the patient is calmed and sleeps quietly until other steps can be taken for his after treatment. So, again, many patients suffering from dementia, who are for the most part harmless, and who live with their friends, are now and then liable to attacks of acute brain irritation and become very troublesome, noisy, violent, and dirty. In such as these I think much benefit will be found from this drug given at first in a full dose, three eighths or three quarters of a grain, and continued afterward in one sixteenth to one eighth of a grain dose. As a suggestion it might be quite worth trying in delirium tremens."

**TOXIC ACTION OF SALICYLATE OF SODA.**—Dr. Daly, in *British Medical Journal*: On November 4th was sent for to see Mrs. B., aged fifty, suffering from rheumatic fever in a severe form. Both knees, one ankle, one

shoulder, and both wrists were greatly swollen and exquisitely painful. She was sweating profusely, the tongue was coated, and the temperature  $103.2^{\circ}$ . Ordered milk-diet and twenty grains of salicylate of soda every two hours. Again saw the patient in twenty-four hours. She had taken the twenty-grain dose regularly every two hours, and he found her quite free from pain, sweating little, and swelling nearly gone; temperature normal. She had slept little, and was incoherent and inclined to call things and people by wrong names. She was ordered to take the salicylate every three hours. On the 6th found her quite delirious, refusing to take food or medicine unless forced, and laboring under all kinds of absurd delusions. She appeared quite free from pain, and the temperature was normal; but she had not slept at all, and was wandering the whole night. She was ordered to stop the salicylate of soda, and to take an alkaline with quinine; also twenty-five grains of chloral hydrate at bedtime. After the visit the delirium became violent; but the chloral at bed-time gave six hours' sleep, and next morning she was quite rational and much better, only complaining of pain in the right wrist. The urine was quite dark, and contained a very little albumen. Resumed the salicylate of soda in ten-grain doses, with a grain of quinine, three times a day; and from this day there was no further trouble from the joints, but an attack of rheumatic conjunctivitis retarded the convalescence.

**ON GRAY HAIR, WHITE HAIR, AND ALLOPECIA.**—*London Medical Record*: Dr. Wertheim read a paper upon this subject before the Imperial Royal Medical Society of Vienna. He said the anatomy of hair that had become white was already well known, inasmuch as in Simon's *Treatise on Diseases of the Skin* it was stated that white hair only differed from that which was colored in the complete absence of pigment in the papilla and shaft, but nothing was said anywhere in literature as to the manner in which this condition was produced. Dr. Wertheim



had examined the hair of persons aged between fifty and seventy, and had studied its texture in longitudinal and transverse sections, from the papilla to the shaft. In transverse sections the papillæ were found varying in color from black, dark red, blood-red, reddish yellow, and white. This was the series followed by nature in the change from colored hair to white. Dr. Wertheim exhibited microscopical preparations showing that when the papilla was red or reddish the hair belonging to it had already lost its normal color and become pale, and that the colorless papillæ always belonged to white hairs. He had also studied the process of falling off of the hair. Differing from the opinion recently expressed by Prof. Stieda, of Dorpat, and Dr. Unna, of Strasburg, he arrived at the conclusion that falling off of the hair takes place in the following way: The pigment becomes detached from the knob which embraces the papilla, and then by the contraction of the follicle in a way which Dr. Wertheim could not explain the hair is pushed out.

THE following bill, which was actually rendered in Owen County of this state, would probably have satisfied the utmost demands for itemizing accounts. The baleful influences of specialism had probably not reached the neighborhood in which the services were rendered at the time the bill was made out, some years ago:

———— to ———, Dr.:	
To seventeen visits, to ———.....	\$8 50
To preaching funeral-sermon.....	1 50
To shaving corpse .....	10
	<hr/> \$10 10

THE NON-INOCULABILITY OF THE SEMEN IN SYPHILIS.—Dr. Mireur (*Annales de Dermatologie et de Syphilographie*):

A syphilitic patient, aged twenty-six, with characteristic indurated cicatrix of primary sore, multiple adenitis, papular roseola, mucous patches of mouth and anus, etc., and who had not undergone any specific treatment, consented to supply the material for inoculation. The semen obtained from this

man was immediately inoculated upon four healthy persons quite free from syphilitic antecedents. All the instruments used were new and perfectly clean.

The first two subjects were inoculated by three punctures made on each arm with a needle. On the third patient a small blister was raised by means of ammonia upon the right leg. Charpie dipped in the semen was then applied to the denuded dermis, and carefully kept in place for twenty-four hours. In the fourth case the epidermis at the upper and outer part of the left arm was removed by scraping, and three small transverse incisions were then made. Charpie thoroughly soaked in the seminal fluid was kept in contact with the wound for thirty-six hours.

The results of Dr. Mireur's experiments were the following: In the first two cases the punctures gave rise, a few hours afterward, to slight local inflammation; but the next day all inflammatory action had disappeared, and only a small ecchymotic and scarcely appreciable mark at the site of each puncture was left. All traces disappeared about the fifteenth or sixteenth day. In the other two cases there was not even signs of local irritation, and the wounds rapidly healed. All four persons were minutely and regularly examined every day for more than six weeks, and were kept under attentive observation for about six months. During this time not the slightest sign of syphilis, either local or constitutional, appeared in any of them. Two of the patients, who were examined again about a year after inoculation, confirmed by their good state of health the absolutely negative result of the experiment.—*London Med. Record*.

ABSORPTION OF MEDICINAL SUBSTANCES BY THE VAGINAL MUCOUS MEMBRANE.—Dr. Hamburger, in the *Prager Vierteljahreschrift*, describes a series of experiments performed by him to ascertain the absorbent power of the vaginal mucous membrane. He used solutions of the following substances, of the strengths indicated: Iodide of potassium,

fifteen per cent; ferro-cyanide of potassium, five per cent; ferrid-cyanide of potassium, nine per cent; salicylic acid, two per cent; bromide of potassium, six per cent; and lithia, ten per cent. A plug of purified cotton-wool soaked in the solution was placed in the vagina, and over it two dry tampons. The bladder was first emptied, and afterward the urine was drawn off by the catheter and examined at intervals of two or three hours. All the above-mentioned substances were found in the urine. Iodide of potassium was found two hours after the introduction of the tampon, and traces of it remained twenty-four hours after removal. Ferro-cyanide of potassium, salicylic acid, and bromide of potassium appeared three hours after they were given. Hamburger believes that the administration of drugs by the vagina can be employed in all cases of obstruction of the normal passages, and that it will be specially useful in gynecological practice.—*London Med. Record.*

In the late international walking-match which took place in London our English cousins were beaten. A surgeon of the Royal Free Hospital, writing to the Medical Press and Circular, gives the reasons for their failure. The English pedestrians suffered from tight boots, in-growing toenails, corns, bunions, skinned heels, had their legs rubbed the wrong way, slept hanging over a clothes-line, and had nothing worth mentioning to eat. It must be confessed that these were enough inconveniences to interfere with success. An Italian by the name of O'Leary won the match, making five hundred and twenty miles in a trifling number of hours.

**THE VOMITING OF PREGNANCY.**—The Presse Méd. Belge notices a method proposed by Dr. Labelski, a physician attached to the Warsaw hospitals, at the Brussels Academy of Medicine, for arresting the incoercible vomiting of pregnancy. As soon as this appears, or even the nausea which usually precedes it, a douche of pulverized ether

should be directed by Richardson's spray-producer against the epigastric region and the corresponding part of the vertebral column. The douche should be prolonged for from three to five minutes, or even longer, and repeated every three hours. In obstinate cases it should be alternated with douches of chloroform.

THE death-rate of Munich is more than thirty-three per thousand, and that of St. Petersburg nearly thirty-five per thousand of the population.

THE population of Paris is 1,986,748. In the year 1877 it had 53,353 deaths, 1,705 more than in 1876.

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## Selections.

**Cure of Asthma.**—The Doctor: Prof. Germain Sée has read to the Académie de Médecine a paper in which, after adverting to the few occasions in which iodide of potassium has been hitherto used, he recommended it not for the mere relief of the paroxysm as used by Trousseau, but as a means of effecting the cure of the disease itself. Since 1869 he has met with fifty cases, twenty-four of which he has had under prolonged observation, never for less than a year, some for three or four years. He dissolves ten grammes of the iodide in two hundred of wine or water, and gives before each meal, twice a day, eight or nine grammes, so that the patient takes daily sixteen or eighteen grammes of the solution, or one gramme eighty cent. of the iodide daily. After some days this quantity is gradually doubled, syrup of orange-peel may be added, or the iodide taken in wafers. At the end of two or three weeks, when the attacks are relieved or interrupted, the dose may be diminished to a gramme and a half per diem. From time to time the treatment may be interrupted for a day, but a longer interruption may be followed by a return of the attacks. A patient who had been cured for a year, left off the iodide for four days, was again attacked. Cough may be relieved by the addition of a little extract of opium or syrup of poppies. If there is not much cough or catarrh, two or three grammes of chloral given in the evening assist in diminishing the dyspnoea.

Under the use of the iodide (1) the respiration becomes free in about two hours; and when it has been administered some hours before the paroxysm the

development of this is almost certainly prevented. The second paroxysm is suppressed with certainty. (2) The respiratory murmur can be heard in regions wherein it was suppressed. (3) Recent emphysema disappears, with the exaggerated sonority dependent upon it. (4) The râles cease to be sibilant and become mucous, allowing of the penetration of air. (5) At the end of some hours the orthopnoea and emphysema have given place to normal respirations, intermingled or not with disseminated mucous râles. (6) When the asthma is chronic, with permanent emphysema, if the treatment be continued after the subsidence of the attack, not only do the paroxysms totally cease, but the emphysema and oppression habitual to the asthmatic entirely disappear, especially in dry asthma. In catarrhal asthma the catarrh may persist for a longer or shorter time after the dyspnoea has disappeared. (7) When the asthma is due to a valvular lesion of the heart, the effects produced are but slight; but when it is connected with degeneration or hypertrophy of the cardiac tissue itself, the iodide treatment leads to the disappearance of the dyspnoeic element. But before pronouncing on the existence of cardiac asthma, we should be aware of a fact that may easily give rise to error. This is, that in a great number of the subjects of asthma we may observe at the apex of the heart, and more rarely at the base, a very gentle but very evident systolic *bruit de souffle*, which may lead to the fear of the existence of valvular lesion. But this sound, which seems to reside in the valves of the right side of the heart, entirely disappears, and that in some days, with the removal of the asthma by means of the iodide treatment.

The inconveniences of the prolonged use of the iodide, are: (1) Oozing of blood from the mouth and fauces. (2) Hemoptysis. This occurs only in those predisposed to tubercle; and in all such subjects, and even when the diagnosis is doubtful, the iodide must be forbidden. (3) Loss of appetite and disgust at food. For this it suffices to suspend the treatment for a day from time to time, and to diminish the dose during a week. (4) Emaciation. This is not a contra-indication, for at a later period the patients may recover their flesh. (5) Iodine cachexia and diffuence of the blood have never been met with even after prolonged treatment. The general result is, that a cure takes place in almost all cases, even when the patients are placed amid atmospheric conditions which are habitually injurious. The patients also resist far better the changes of temperature, the influence of heat and cold, the action of the wind and of dusts. No precaution has to be taken as regards hygiene and regimen, and the use of coffee and tobacco has not seemed to be injurious.

Prof. Sée has employed inhalations of the iodide of ethyl in five cases of asthma, and the paroxysm

was arrested in all very rapidly. In three cases of cardiac dyspnoea it also acted favorably, and in two cases of chronic bronchitis accompanied by dyspnoea the effect, although much less prompt, was advantageous. Quite recently, in a case of oedematous laryngitis, inhalations repeated ten or twelve times a day effected a cure. Like the iodide of potassium, the iodide of ethyl increases the bronchial secretion, and by this hypersecretion renders it more fluid, and thus favors the admission of air into the pulmonary alveoli. The iodine stimulates the action of the respiratory center, and, by reason of the greater quantity of blood this is brought into contact with, respiration becomes more easy, being still further aided by the ether in combination with the iodine.

The general conclusions to be drawn from the paper are: (1) Iodide of potassium constitutes the most certain means of curing asthma, whatever its origin may be; (2) the iodide of ethyl relieves the paroxysms of asthmatic dyspnoea with great rapidity. It also appears to act advantageously in cardiac and even in laryngeal dyspnoea.

**Ozena and its Treatment.**—Archives Générales de Médecine: Dr. Rouge lately read to the Congrès International des Sciences Médicales, held at Geneva, a paper on Ozena, in which he stated that as a rule the disease originated in suppuration of the nasal fossae, or the sinuses connected with them, as the frontal, ethmoidal, and the antrum. The suppuration appears to be always due to some alteration of the bones. The larger the extent of bone affected the greater the degree of ozena, the fetidity of the breath being increased by the putrefaction of the gums. The treatment should consist in frequent washing out and frequent injections of the nasal fossae; insufflation of astringent, caustic, and disinfectant powders, cauterization with solid chemical caustics, the employment of the galvano-cautery, extraction of sequestra, drainage of the sinuses. To effect these proceedings the nose should be detached by the sublabial operation, which permits all the parts to be examined, and the extirpation of the necrosed parts. No cicatrix is perceptible after the operation. In addition general treatment should be attended to.

**Heymann upon Abnormalities of the Spine, simulating Chest-disease.**—Lond. Med. Record: In the Berliner Klin. Wochenschrift, December 24th, Dr. P. Heymann, of Vienna, describes two cases of spinal abnormality, simulating disorders of the cervical and upper thoracic viscera.

The first case is that of a well-made, robust girl, aged sixteen. She complained of periodic attacks of dyspnoea, which usually occurred a few days after catching an ordinary cold, and gradually gave way again, after three to five days, on the setting in of

an abundant thickish expectoration. The difficulty of breathing was greatest in the recumbent posture, and at night, and was accompanied by a feeling of obstruction of the throat, without, however, constriction and oppression of the chest, and by deep reddening and suffusion of the face. Cough and difficulty of swallowing were entirely absent. Examination with the laryngoscope revealed a rounded, hard, bony, and immovable prominence projecting from the posterior pharyngeal wall, and occupying two thirds of the pharynx. On moving the head forward or backward this projection was slightly altered in form. The epiglottis appeared smoothed and flattened, and fitting to the anterior surface of the prominence. On examination from behind, the spinous process of the fourth cervical vertebra was indistinctly felt, and projected rather too much upward, and above it was felt a considerable gap, bounded above by the spinous process of the axis. Upon bending the head backward the spinous process of the fourth vertebra disappeared, but became plainly prominent again upon inclining the head forward, and then the gap was occupied by a tense band apparently stretching between the spinous processes of the second and fourth cervical vertebrae. On inclining the head laterally only one side appeared thus stretched. The head was readily reclined, but there was some difficulty of inclination. It appeared, therefore, that the arch of the third cervical vertebra was deficient; hence the body of the vertebra was thrown forward, causing a tilting backward of the spine, and the prominence described, while posteriorly the spinal canal was for the time obliterated. On the occurrence of a throat-catarrh, the mucous membrane covering this projection swelled and pressed against the epiglottis, thus causing the dyspnoea, which was relieved by stretching the neck upward and forward, and so reducing the obstructing prominence. This defect of the third cervical arch was evidently congenital, the symptoms described having existed from earliest childhood. In the anatomical collection at Vienna there exist several specimens of similar abnormalities; for example, an atlas with the entire arch between the articular processes absent, complete fissure of the atlas, ankyloses between two or more cervical vertebrae, etc.

The second case was that of a gentleman, aged fifty, who for the last two years had suffered from difficulty of swallowing, amounting at times to utter impossibility; vomiting was never present. Examination with oesophageal bougies showed the existence of a variable obstruction below the cricoid cartilage, so that at one time the largest bougie could be introduced, while at another even the finest could not pass. When the obstruction was once overcome, all sizes of bougies were readily passed down to the stomach.

This coincided with the patient's statement that at times he could not swallow at all; but if the food had once overcome the obstacle situated high up in the gullet, it readily passes onward. We know that the normal relation of the cricoid cartilage to the spinal column is such that a certain amount of movement of the head is necessary when introducing the oesophageal sound.

In the patient the introduction of the bougie was yet much more dependent upon the position of the head. This led to the conclusion that the obstruction to deglutition consisted of a lordosis (curvature with the convexity forward) of the cervical vertebrae. This was confirmed on undressing the patient. It was then found that there existed skoliosis (curvature with the convexity backward) of the upper dorsal and of the lumbar vertebrae, compensated by skoliosis and slight lordosis of the lower dorsal vertebrae, and lordosis of the lower cervical vertebrae, which occasioned the obstruction to deglutition. A pasteboard cravat of about a hand's breadth was accordingly so adapted that by stretching the neck upward the curvature was almost neutralized, enabling the patient to swallow without difficulty.

**Robin on Cerebral Commotion as a Cause of Transient Glycosuria.**—London Med. Record: At the meeting of the Société de Biologie in Paris on December 1, 1877, M. Albert Robin, in support of the new theory advocated by M. Duret on cerebral commotion as a cause of passing glycosuria, reported a typical case. A young man, aged nineteen, having fallen from the seat of a carriage, was taken to the Beaujon Hospital. There were ecchymoses of the head, and he remained unconscious for many hours. As there was retention of urine, M. Robin performed catheterization, and found that there was a notable quantity of sugar in the urine. A short time afterward a second examination gave no traces of sugar. This is therefore a perfectly authentic case of temporary glycosuria, consecutive on cerebral commotion. M. Claude Bernard observed that this could be produced experimentally in animals.

**Test for Alcohol.**—The Doctor: A very sensitive reagent for alcohol, and one that is very simple in its mode of application, has been found by M. Jacquemart. It is a solution of nitrate of mercury obtained by treating the metal with a little nitric acid of average concentration. The action is vigorous and rapid. The mercury is brought in part to the minimum of oxidation; and if a little ammonia be added to the mixture after the reaction, a dark precipitate is obtained, which is darker the more there is of alcohol in the product suspected. Methylic alcohols and similar liquids do not give a dark precipitate with ammonia.